

ABSTRACT OF THE DISCLOSURE

Flt3-ligand can be used to generate large numbers of dendritic cells from hematopoietic progenitor and stem cells. Flt3-ligand can be used to augment immune responses in vivo, and expand dendritic cells ex vivo. Such dendritic cells can then be
5 used to present tumor, viral or other antigens to naive T cells, can be useful as vaccine adjuvants. When flt3-L is used and/or administered in combination with other reactive agents, e.g. CD40 binding proteins and 4-1BBL or antibodies reactive with 4-1BB, the combination further enhances immune responses and the effectiveness of vaccine adjuvants.